

Farm Notes.

BEES AND FLOWERS.

Bees in their search for honey visit only one kind of flowers on the same trip. This is not accidental, but is a wise provision for preventing hybridization of different varieties from the pollen which bees always distribute in their journeys from flower to flower.

SUMMER CARE OF CELLARS.

Thorough ventilation is necessary where milk is kept in cellars, or it will become injured by mould or foul odors. This is more often the cause of poor summer butter than any other. The butter is tainted before it goes to the churn, and no possible after-care can make it good or keep it fit to eat until winter.

ALSKE CLOVER.

The yield of alsike generally disappoints the expectations of those who look it while growing. Its stalks are fine and do not weigh in proportion to their bulk, as they are harsh and lie loosely. It is a good crop to sow with the common red clover, as it will fill in spaces where the old-fashioned clover fails to catch.

PROTECTION FROM FLIES.

Green smartweed briskly rubbed on neck, sides and other exposed parts of cows or horses will keep flies from attacking them. To be effectual the rubbing should be given twice a day, but it will well repay this trouble. Smartweed can be found on most farms, and is valuable enough for this purpose to claim the room it occupies.

COTTON-SEED MEAL.

An experienced farmer warns others against giving cotton-seed meal to breeding cows, or to your stock of any kind. It is very difficult to digest, and fed to cows often causes abortion. Great care must be used in getting animals accustomed to this food, which cannot be fed in large quantities, even to stock accustomed to it. Young calves fed even a little have been killed by it.

THINNING PEACHES.

The great majority of poor peaches are inferior chiefly because the trees overbear. The peach pit is always a large proportion of the fruit, and it is the part that is most exhaustive to the tree. Nature never neglects the seed. It is the means of reproduction, made more important as the vitality of the tree becomes impaired. A peach tree attacked by the borer or in a dry, sterile soil will always set more fruit than one well cared for and manured, but it will be worthless for eating.

CULTIVATING BEARING ORCHARDS.

One of the chief reasons why orchards should not be cropped is because it requires cultivation during the summer season. When roots are destroyed by deep working the ground it often results in permanent injury to the trees, especially if done late in the season. Since the clearing of woodlands has given winds a free sweep the soil dries out much faster than formerly, and this makes trees more liable to injury from mutilation of their roots.

SWEET APPLES FOR FEED.

Some varieties of sweet apples are such abundant bearers that the trees are worth keeping if the fruit can only be used for feed. There is a great deal of nutriment in sweet apples, and they are relished by every kind of stock. Given in moderation and with other feed they are good for everything. It is because cows if allowed their run in an orchard will gorge and thus injure themselves that apples have the reputation of drying up cows' milk.

GRAPES FOR TABLE USE.

Except in California, only a small quantity of our grape product is devoted to wine-making. The demand for eating constantly increases, and a large proportion of even large vineyards is sold in the bunch. Vineyardists have injured the sale of their fruit by excessive eagerness to be first in the market with it. The poorly colored, sour and unripe specimens thus sent out spoil the demand for it, and probably more profit would be made if none were sold until fully ripe.

OLD HORSES.

For a farmer's use a horse is worth more at seven than at any other age. He has nearly as many years of service as at a less age, and at seven is past the danger of being strained or injured by overwork. How old he must be before becoming superannuated depends upon circumstances. A horse overworked becomes played out at an age when one well treated

is still able to do good service. Feeding moistened cut feed is less wearing to the teeth than whole grain. Oats especially are apt to be gritty, besides being stimulating. An oat-fed horse will overwork himself and become worthless at a comparatively early age.

KILLING SURPLUS FOWLS.

Summer, when eggs are cheap and fresh meats in the country scarce and difficult to get, is just the time to thin out surplus fowls. The roosters should be first disposed of, as no more breeding is desirable this season. The hens will lay as well or better without their attentions. Then resolutely kill the hens two years old or over, and cull out the poorest of the younger flock. In this way only can a first-class lot be maintained, and a few of the best are much more profitable than a great many poor ones.

SILVER HULL BUCKWHEAT.

This new variety, commonly known as gray buckwheat, has the peculiarity of remaining in blossom a long time. It begins early and will continue blossoming until frost. This makes it excellent for beekeepers, but also makes it difficult to save the crop without some loss. The grower must use his best judgment in cutting when the largest portion is mature, but the long period of blooming insures against entire failure. It is apt to be rather thin-skinned, and in a good season to make more flour to the bushel than the old-fashioned kind.

TREES OUT OF PLACE.

A large proportion of trees planted never serve the purpose designed, whether for ornament or fruit. A little judgment or study as to the probable size of trees when mature will guard against setting Norway spruce, for instance, within four or five feet of a house, or apple trees in a little yard which one full-grown tree would more than fill. There is nothing more common in some cities than to see valuable lots filled with apple trees planted ten, or at most twelve, feet apart. Long before they get to be of bearing size they will be removed as worthless cumberers of the ground.

OVER-FEEDING IN SOILING.

One chief reason for many failures in soiling is over-feeding. Green food in warm weather sours rapidly, and if only a little more is given than will be eaten clean it soon becomes very offensive. And herein lies the economy of feeding some grain or meal, not with but after giving the green food. We can give them no more of the soiling ration than will be eaten clean, and yet with grain or meal run no risk of giving less than is needed. The fact is that the food last given tempts the appetite and induces the animal to eat more than it otherwise would, which is always an advantage.

BACTERIA AND FUNGI.

Bacteria is really fungi, but as there are different kinds of fungi, it is not out of place to state that although fungi is considered a minute parasitic plant, it is not an easy matter to draw the line as to what class it belongs. There are hundreds of different kinds of fungi, and each has its own field of operations and feeds on special substances. When we notice the decay or fermentation of dead matter we may come to the conclusion that millions of the smallest vegetable parasites are busily at work. It is their special food, and they do not attack living creatures, but there is no escape, for other kinds of fungi attack the living, whether vegetables, fish, birds, or animals, and we class their work of destruction as that of disease. Some species of fungi also attack both the dead and the living, having a wider range of destruction, and to this class bacteria belongs. The mildew of the berries, the rot of the grapes, the potato disease, corn and wheat smut, and even some diseases of animals may be ascribed to fungi. In future science will assist in unraveling some of the mysteries surrounding the work of fungi. We may retard and prevent injury, but the rapid multiplication of the fungi gives but little hope of escape from molestation. One of the difficulties in the way is that a remedy against one kind is not a remedy for another, and until the time arrives when a more complete knowledge is gained, and the parasites classified, and their habits and characters known, we will have to battle against them in the dark, and depend upon care and vigilance as the only safe and sure safeguard against depredations from such sources.—*Exchange*.

Correspondence.

OATS.

FAYETTEVILLE, N. C.,
Aug. 17, 1886.

EDITOR PROGRESSIVE FARMER:—The enclosed article regarding the oat crop was published about three years ago and I think it will now bear publishing again, as it is time to prepare for sowing. The severe freezes last winter did much damage to the small grain crops. I would like for the farmers who sowed small grains last fall to answer this question: Did you sow any grain in the month of September, if so, was it killed to any extent by the severe freezes of last winter? J. P. M.

"Judging from accounts given in the newspapers, crops generally will be cut short this year by drouth and other causes. The probability is that corn will be scarce and high next year. If this should prove to be the case, as it likely will, then it behooves every farmer as far as practicable to prepare for it by raising such crops as may be substituted for the corn crop. For feeding stock oats perhaps make the best substitute for corn, and when sowed in time they are easily raised. I find the best time to sow them is in September or as early in October as possible. When sown early in the fall they are not likely to be killed by the freezes of the winter, they grow taller and come off earlier in the spring. February is the month to sow spring oats, but when sown at this time from bad seasons and other causes they often fail to make a good crop. I consider the yellow rust proof oats the best to sow, its grains are larger and heavier than either the black or the white kind and they ripen earlier in the spring. The quality of the land should govern the quantity to be sown to the acre—on poor land about one bushel to the acre, on rich land about two bushels to the acre. Oats like corn is a gross feeder and requires a fertilizer containing a large amount of ammonia. The fertilizers can be spread and ploughed in with the oats, but the best time to apply fertilizers on oats or any other small grain is just before they take a start to grow in the spring. Spread the fertilizer broadcast over the growing grain and harrow it in. This process looks like ruining the crop, but it does not injure it—on the contrary it is a benefit in two ways: it covers the fertilizers and at the same time cultivates the growing crop. Sow in lands about fifteen feet wide and plough in about four or five inches deep—the ploughing should be thoroughly done, that is, if possible every square inch of the soil should be well broken and pulverized to a uniform depth of about five inches. If the crop is not harrowed in the spring as already stated above, the harrowing should then be done immediately after the grain is sowed and plowed in. This levels the land and enables the reaper, when his time comes to do better work—he then cuts smoother and cleaner. Oats for feed should be cut when they are ripe or nearly ripe; it is not best to cut them green as some do. When cut they should be put up in twelve bundle shocks and remain so until they are well dried before stacking or hauling into the barn. If these shocks are well made they can remain for several weeks; the weather will not hurt them. For oats or other small grain, if possible select a large field with a fence enclosing the head of a branch or pond that does not dry up in the summer—sow the whole of it, poor spots and all. In saving grain in such a field reap only the best spots or such only as it will pay to reap, and when the crop is saved turn every hog on the premises into the field. They will improve on such a pasture and for a few weeks will not require any other feed. M.

A CONDENSED PRODUCT.

The importance and value of the hog in civilization is not generally understood. Every part of the animal is valuable except a portion of the intestines. In no country of the world is there so many swine raised, according to the population, and in no other country are they so economically raised and fattened as in the West. We have four-fifths as many swine as inhabitants, or 45,000,000, and the average life of the hog is but little more than a year.

Russia has only 10,839,93 swine; Germany, 9,205,791; France, 5,565,620; Hungary, 4,160,127; Austria,

2,721,541; Spain, 2,348,602; Italy, 1,163,916; and Servia 1,067,940. The other several countries of Europe have less than a million each, Norway coming last in the list, with only 101,020 head. None of these countries produce enough pork products for their own consumption; the United States alone produces a surplus.

Every part of the hog is utilized in the great packing establishments of this country. The hide, hair, fat, flesh, ligament, tendon and bone—all used—and the small intestines and a portion of the larger are put to some use. The hair and bristles of the hog will give an indication of how every part is made to pay. The hair alone on a hog will average to be worth 5 cents.

The Chicago Mail lately gave the process by which the hair was saved and made merchantable, from which we collect the following facts:

"When a hog is scalded two men range themselves on either side of the bench on which the carcass lies and with tweezers rapidly pick out the large bristles. These are carefully packed in a barrel and prepared for shoemakers' use. The hands of the men fly like lightning in this work, while a keenness of vision is absolutely necessary. Then the scraping machine is brought into play, and like a flash the hog is as smooth as an egg from snout to tail-tip."

The hair is then carefully and thoroughly washed, pressed and forked into carts and taken to the hair-field, where it is spread out like new-mown hay. It is not quite so aromatic, however. Two of these many plats of ground in Chicago are each over one hundred acres in extent.

The "curing" process usually occupies all of four months. It is shaken up and winnowed constantly until thoroughly dry, and all the foreign particles have been shaken off. The bristle department requires special care. The hair is packed in bales and shipped to be assorted by hand and sold to manufacturers.

Numerous devices have been invented in the past few years for the cleansing and curing of hog's hair, the object being thoroughness and expedition. None, however, was satisfactory until a patent was tested a short time since, which performs the work of four months in four hours.—*Farm, Field and Stockman*.

DEHORNING CATTLE IN THE WEST.

I tried Mr. Haaf's plan of dehorning cattle, and like it very much. I have a thoroughbred Holstein bull, 4 years old next June. He was always very quiet until this spring. I let him run at large in small pastures with the cows, and he got independent and threatened the passers-by, and would meet me half way when I went out with a bucket of water to feed him, and I had to drop the corn and give back for him. So I concluded I had always been boss, and I would just dehorn him. I put him in the barn and with the assistance of the ring in his nose, I tied him up to a post with a three-fourth inch rope about his head and neck, and then took an old gunny-sack and blinded his eyes so he could not see to fight me; I then took a fine tooth meat saw and sawed both horns off close to the head, or at the seam between the head and horn. He bled some three or four tablespoonfuls of blood in all. Then I turned him out and let him run two days; then took him up and used a small can of pine tar on the stumps to keep the flies off, and a little sprinkle of spirits of turpentine. But it is all healed up now and well. He is as docile as a calf now, and my little boys 8 and 11 years old, drive him where they please. As for hooking and butting the other cattle, my three year old cow can eat corn from the same bucket with him. His head was so sore and tender he will remember it for six months before he can begin to learn to butt anything. The horses run in the same lot with him safely. I think it is the best way to keep control of horned cattle, and does not hurt the looks of the animal half so much as I expected. He looks just as the Polled Angus cattle do, without horns. I believe I can save feed and much abuse to cattle and stable room by dehorning all of them, especially the old ones, and lifting the horn germs off the calves at three months old with the point of a sharp knife. W. A. T.
Holstein Park, North Topeka.
—*Kansas Farmer*.

ROTATION OF CROPS.

A subscriber asks us for information about the rotation of crops. This is one of the most important questions relating to farm work, and deserves especial consideration. It has long been considered as indispensable to good and successful farming and there is no reason to suppose under the light of all the later knowledge derived from experiment and study, as well as improved practice, that the old farmers were mistaken. The old practice was to follow grain with a grass crop or with one which required frequent cultivation of the soil. This was so established that among the English farmers whose crops on the average have more than doubled ours, every tenant was bound by his lease to conform to it, and never to follow a grain crop with another one of the same kind. The reason for this was and is that the growth of consecutive crops of the same kind rapidly exhausts the soil, or encourages the growth of weeds. It is found in the natural growth of plants and forests that a certain growth is generally succeeded—after it has attained its maturity—by a different kind of vegetation; for instance, when a pine forest has been cut off, or has been destroyed by fire, hard woods succeed it, or when oaks or other hard woods have been cut off, pines grow in their place. The old fields of the South are a standing example of this, and the "old field pine" covers the abandoned land from which a hard wood forest was cut off, to make room for tobacco and cotton. The explanation of this fact is, that hard woods are rich of potash and taking a large quantity of this element from the soil, leaves the land deficient in it, and unable to produce another growth of hard woods, but as pine is rich in silica and poor of potash, and having an abundance of silica, produces the pine with ease, when it could not produce oaks, hickories and other hard woods. The same principle applies to farm crops, and hence wheat is followed by grass or clover, and these with corn, and corn with oats or barley; and then the land is manured, and wheat is grown again. In practice, we think this rotation is too short, and would be greatly improved by a root crop after corn, and oats and barley after the roots, with clover following and the second year's clover plowed in for wheat with which grass is sown, with clover added in the spring. But this, too, might be improved, perhaps, by sowing the grass and clover to themselves in the spring, and not with the wheat or early in the fall, as soon as the wheat is removed, thus permitting the soil to be thoroughly prepared for the grass seedling, by which its success is greatly encouraged.—*American Agriculturist*.

THE TIME TO CUT TIMBER.

On this subject Prof. Budd writes to the Iowa State Register as follows: At the great forestry convention at Moscow, we were told that the united results of the many trials had been in favor of trees felled the latter part of June, while the bark would yet slip. The common practice now in all the government forests is to fell the trees at this time, and at once to peel the bark from the trunk as high up as it is valuable for timber. Above this point the limbs and foliage are left to aid in the work of evaporating the water from the cell structure of the log. In about ten days after felling the logs are cut, and at once sawed or cut into lumber, ties, posts, etc., after which the drying process is completed as rapidly as the most favorable conditions will permit.

Theory and practice unite to favor this time for the cutting and rapid drying of timber. If cut in the fall, winter or early spring, the cell structure of the log is stored with starch for the extension of growth the succeeding spring. However useful this starch may be to the growing tree, it is evident that it can only tend to fermentation and decay in the dead post, tree or stick of timber. So far as I know, the teaching of all the forestry schools of Europe has recently favored the views here expressed, yet I notice that the older writers and most of the recent writers who follow them, favor the winter cutting of timber.

—There has been no rain in Colorado during the past three months, and in consequence rivers are drying up and the crops and the stock of the rangemen, as well as their families, are suffering for want of water.